

AMENDMENTS TO THE CLAIMS:

Please cancel claims 1 and 25-27 without prejudice, amend claims 3-6, 12 and 24 and add new claim 29 as follows.

1 - 2. (Cancelled)

3. (Currently Amended) A stent as claimed in claim 4 12, wherein the helical portion comprises an increased amount of stent forming material relative to the amount of stent forming material in portions of the stent adjacent to the helical portion.

4. (Currently Amended) A stent as claimed in claim 4 12, wherein the helical portion comprises structural members having bent portions which resist unbending during expansion of the stent more than a portion of the stent adjacent to the helical portion.

5. (Currently Amended) A stent as claimed in claim 4 12, being a self-expanding stent.

6. (Currently Amended) A stent as claimed in claim 4 12, being a balloon expandable stent.

7-8. (Cancelled)

9. (Previously Presented) A stent as claimed in claim 12 wherein the stent is a balloon expandable stent in combination with a balloon for expanding the stent, the

balloon having an expandable wall, the wall having a helical portion which in the expanded condition extends longitudinally and circumferentially, and which, upon expansion of the balloon from the collapsed condition to the expanded condition, resists extension more than portions of the wall adjacent to the helical portion.

10. (Original) A stent as claimed in claim 9, wherein the helical portion of the balloon expandable wall has a wall thickness greater than that of adjacent wall portions.

11. (Cancelled)

12. (Currently Amended) A stent for insertion in a fluid conduit of a human or animal body when the stent is in a collapsed condition and for expansion to an expanded condition, wherein in the expanded condition the stent causes the fluid conduit to have a flow lumen having a center line which follows a substantially helical path, wherein the stent when expanded ex vivo has a helix angle less than or equal to 65° and a helical center line having an amplitude less than or equal to 0.7 of the internal diameter of the stent; and, wherein the stent, in the expanded condition, is substantially free of ribs which would project into the flow lumen of the conduit; and

wherein the stent comprises an outer wall for engagement with the conduit, the outer wall having a helical portion which in the expanded condition extends longitudinally and circumferentially, and which, upon expansion of the stent from the collapsed condition to the expanded condition, resists extension more than portions of the stent adjacent to the helical portion.

13. (Previously Presented) A stent as claimed in claim 12, wherein the amplitude of the helical centre line of the stent divided by the internal diameter of the stent is at least 0.05.

14. (Cancelled)

15. (Previously Presented) A stent as claimed in claim 12, wherein the helix angle is less than or equal to 15° .

16. (Previously Presented) A stent as claimed in claim 12, wherein the flow lumen of the stented conduit is of substantially circular cross-section.

17. (Previously Presented) A stent as claimed in claim 12, wherein the helical centre line of the stented conduit extends over just part of the overall length of the stent.

18. (Previously Presented) A stent as claimed in claim 12, wherein the helical centre line of the stented conduit extends over substantially the entire length of the stent.

19. (Previously Presented) A stent as claimed in claim 12, wherein the centre line of the stent follows a substantially helical path about an axis which is curved.

20. (Previously Presented) A stent as claimed in claim 12, comprising a pharmaceutical coating.

21. (Previously Presented) A stent as claimed in claim 12 wherein the amplitude of the helical center line of the stent divided by the internal diameter of the stent is at least 0.1.

22. (Previously Presented) A stent as claimed in claim 1 wherein the stent undergoes at least one turn of the helix.

23. (Previously Presented) A stent as claimed in claim 12 wherein the helical portion has the same number of turns both when the stent is collapsed and when it is expanded.

24. (Currently Amended) A stent for insertion in a fluid conduit of a human or animal body when the stent is in a collapsed condition and for expansion to an expanded condition, wherein in the expanded condition the stent has a center line which follows a substantially helical path, so as to promote a swirl flow effect within the fluid conduit supported by the stent, wherein the stent when expanded ex vivo has a helix angle less than or equal to 65° and a helical center line having an amplitude less than or equal to 0.7 of the internal diameter of the stent, wherein the stent, in an expanded condition, is substantially free of ribs which would project into the flow lumen of the conduit, and wherein said helical center line varies the helix angle and/or amplitude of the helical center line varies along the length of the stent to introduce a gentle swirl flow effect at an upstream end of the stent and to increase the swirl flow effect in a downstream direction.

25 - 27. (Cancelled)

28. (Previously Presented) A stent as claimed in claim 24, wherein the amplitude and the pitch of the helical center line vary along the length of the stent.

29. (New) A method of inserting a stent in a fluid conduit of a human or animal body, comprising:

inserting the stent when in a collapsed condition;

expanding the stent being to an expanded condition;

causing the fluid conduit in the area of the stent to have a flow lumen having a center line which follows a substantially helical path, wherein the stent when expanded ex vivo has a helix angle less than or equal to 65 degrees and a helical center line having an amplitude less than or equal to 0.7 of the internal diameter of the stent; and

providing a smooth inner periphery for the stent, wherein the stent, in the expanded condition, is substantially free of ribs which would project into the flow lumen of the conduit.